

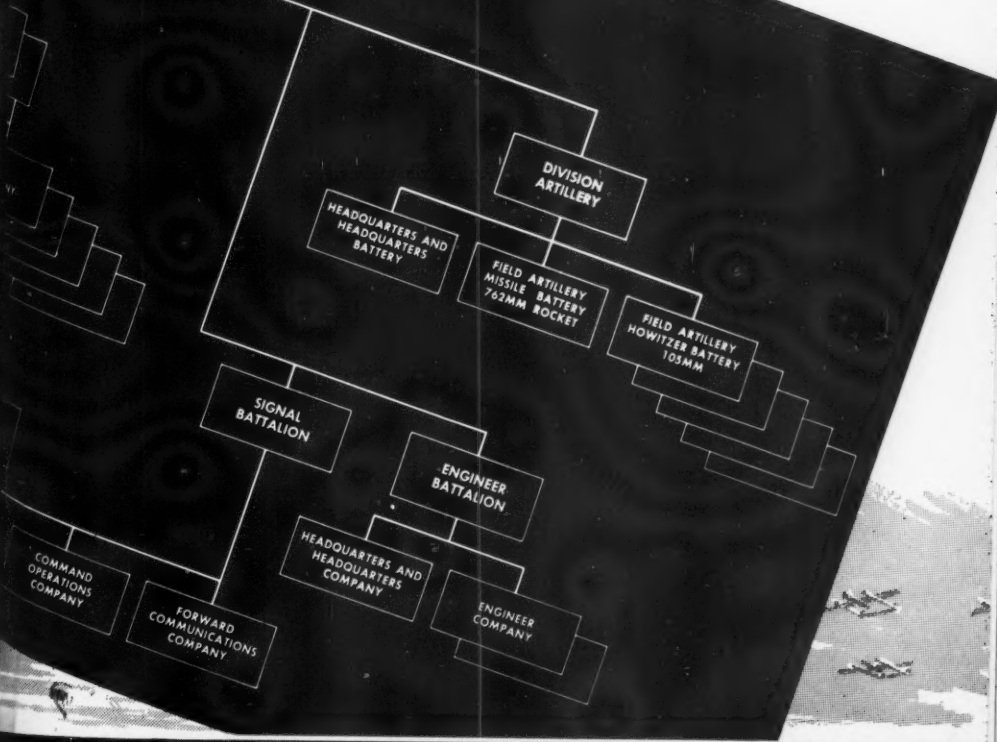
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ARMY INFORMATION DIGEST

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REORGANIZED
INFANTRY DIVISION





ARMY INFORMATION DIGEST

THE OFFICIAL MAGAZINE
of the
DEPARTMENT OF THE ARMY

The mission of ARMY INFORMATION DIGEST is to keep personnel of the Army aware of trends and developments of professional concern.

THE DIGEST is published under supervision of the Army Chief of Information to provide timely and authoritative information on policies, plans, operations, and technical developments of the Department of the Army to the active Army, National Guard, and Army Reserve. It also serves as a vehicle for timely expression of the views of the Secretary of the Army and the Chief of Staff and assists in the achievement of information objectives of the Army.

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WHETHER it is called adjustment, adaptation or evolution, *change* is the immutable law of life and survival of individuals, institutions, and organizations. In the lead article, the Commanding General of U. S. Continental Army Command emphasizes the necessity for forward-looking adaptability in combat concepts and organization to cope with the realities of the atomic battlefield. Significant progress toward this goal is described in "Reorganizing the 101st Airborne" and "Developing Tomorrow's Army Today."

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ADAPTATION

INDEX TO

GENERAL W. G. WYMAN

Commanding General, U. S. Continental Army Command

Like all living organisms, armed forces are subject to evolutionary law. They must constantly adapt to changes in the environment of the nation they serve. The law is enforced by capital punishment. A nation whose armed forces do not comply risks death.

In peacetime, the difference between the rate of military adaptation and the rate of environmental change is the margin of national

ABILITY:

SURVIVABILITY



danger. The greater the lag, the greater the temptation to an enemy to attack. Like the buffalo trails of the old west, the pages of international history are littered with skeletons attesting to the fact that the life of the laggard is short.

In battle, the nation with the highest rate of military adaptation when the first shot is fired is the nation that wins—providing the advantage is maintained and exploited. The greater the initial gap, the swifter and surer the victory.

Sooner or later all other nations lose! It matters not where or how the defeat takes place—whether by bloodless surrender to thinly-veiled military coercion at the conference table or by actual force of arms. Hot or cold, there is no second prize in war!

It follows that *adaptability* is the prime index to the potential of any armed force—both as a national shield and as an instrument of national policy. Framed within this historically substantiated premise are two distinct

but closely related evolutionary requirements that the Armed Forces of the United States must continue to meet in the hazardous environment of the nuclear age:

(1) Adaptation to the conditions for exerting military force imposed by our national morality, purposes and objectives.

(2) Adaptation to (and of) the means of war which the accelerated evolution in technology makes available to us and to our obvious enemy.

Thus far, meeting the first of these requirements has posed no problem organic to the Army. Although modern technology has vastly increased the highest degree of force which the Army can employ, the capability to apply *lesser degrees* has not been neglected.

Recognizing the moral and political implications of the timeless principle of war known as "Economy of Force," the Army now maintains a full scale of capabilities—ranging from the rifleman's butt stroke to the guided missile's nuclear blast. Consequently it can select and apply a degree of force appropriate to a specific purpose and a specific objective. It need not invite mutual extermination in

order to defend; it need not annihilate in order to liberate. In short, the Army has retained its *useability*. It must continue to do so!

Only in strategic mobility can the Army's current useability as an instrument of national policy be seriously questioned. And this is a matter of limited means rather than limited adaptability. Given adequate transport, there is no limit to the strategic mobility of the Army that the Army cannot surmount. The groundwork within the Army has been accomplished. Already most tactical units and their close support elements are combat employable via air.

To express the hope that we—not the enemy—will ultimately profit from all this is not an idle quip. It is one of the ironies of history that military adaptations envisioned by far-sighted men often go unheeded in their own country but are adopted with alacrity and victorious results by the enemy. For example, it was the German Army—not the British—that profited most by the British invention of the tank and the theories for its employment advanced by Britain's Liddell Hart prior to World War II. The result was Dunkerque.

KEEPING this salutary lesson in mind, let us now consider the second evolutionary requirement that the United States Army must meet: Adaptation to (and of) the means



GENERAL W. G. WYMAN is Commanding General, U.S. Continental Army Command, Fort Monroe, Va.

of war provided by the gargantuan advance of modern technology.

At once an analogous possibility casts a warning shadow. The technological development of nuclear firepower, which has changed our military environment to a degree comparable only to that effected by the invention of gunpowder, was of *American* origin. American military planners have pioneered in formulating concepts for its battlefield employment. It would be a tragic paradox, indeed, if the enemy—not the United States Army—were to adopt the products of American genius with the greater alacrity.

Thus far it appears unlikely that America will permit this ominous possibility to materialize. Our Army's adaptation to the new conditions for employing military force dictated by nuclear firepower is proceeding at a pace which the enemy is imitating but has yet to surpass. The need for greatly decreasing the human density while increasing the mobility, firepower and span of control of tactical units on the battlefield of the future is clearly recognized by appropriate changes now rapidly taking place in our tactical doctrine, organization, techniques, tools and training.

ALREADY under arms, the United States Army has the world's first ground organizations designed specifically for atomic battle. One of them is the 101st Airborne Division now stationed in strategic reserve at Fort Campbell, Kentucky. For an illuminating discussion of its present and future capabilities, see Maj. Gen. T. L. Sherburne's article in this issue.



Other organizations adaptable to the military environment as forecasted by projecting technological developments into the future ten, twenty, even thirty years, are now on the planning tables of the Department of the Army and the Continental Army Command. Naturally, the details of such organizations are classified. But I can give you one detail that is not: They still include men! And be it lunar or terrestrial, they will still fight with their feet on the ground.

A progress report on the task of developing tools and techniques for all of these evolutionary organizations also is provided in this issue of the *Digest* by Brig. Gen. F. W. Gibb, Chief of the U. S. Continental Army Command's Combat Development and Experimentation Center at Fort Ord, California. Achievements now within the capabilities of our scientist-soldier team often read like science-fiction. Weapons and machines that would have seemed fantastic only a few years ago may soon be commonplace.

It cannot be over-emphasized, however, that pilot models and mock-ups do not prevent or win a war. Were it otherwise, Nazi jets would have swept the skies of allied planes in the closing months of World War II. Only after a new weapon or machine has been tested, mass produced, and placed in the hands of troops trained to use it, can it *materially* improve an

army's combat strength. Only then can it decrease the gap between the rate of technological evolution and the rate of military evolution.

OUR ARMY'S present evolutionary position might be summed up like this: Mentally, we are many miles over the horizon. Materially, we are limited only by money, which is allocated in accordance with defense priorities and principles of national economy.

While we might wish that our rate of material adaptation were geared more closely to technological progress than the present allocation of defense funds permits, we must not under-rate the powers of mental adaptability. Some of Clausewitz's thoughts may be challenged today, but no one can deny that he echoed a timeless truth when he said: "In war, the mental is to the material as 3 is to 1."

Superior mental adaptability *alone* has been responsible for victory in many of the great battles of history. An example with a pertinent moral for us is the German blitzkrieg of 1940. Popular myth still has it that the Anglo-French forces were overwhelmed and cut to ribbons by vastly superior armor. The truth is that the German Army's superiority was *mental*—not metal!

France and Britain had more tanks, better tanks and heavier tanks in the hands of their troops than did the Germans. But the Germans had evolved a superior adaptation of tactical and logistical organization to the potential of the tank. The result was the fall of France.

The moral for us is unmistakable. If we are to respond successfully

to the drastic change in the military environment already effected by the advent of nuclear firepower, it is not enough that we evolve new tools for new organizations. Even if the national economy could provide us with unlimited funds, the time-lag from idea—to production line—to firing line would still be formidable. And so would be our margin of national danger!

We must help close the evolutionary gap by constant adaptation of what we already have!

Elementary? It would have seemed elementary that tactical dispersion was the logical adaptation to the firepower of the machine-gun prior to World War I, but millions were mowed down en masse before the need for that simple adaptation was recognized and acted upon by the armies of Europe.

FORTUNATELY, American military minds have been moving at a faster pace. Adaptation to the conditions of nuclear battle within the framework of existing organizations and with the tools on hand was initiated many months ago throughout all infantry divisions in the United States. Under a concept developed by the Continental Army Command, each division is now acting upon the need for fielding tactical combinations of personnel and materiel with greater self-sufficiency, more mobility and a higher ratio of firepower to manpower than is provided by standard tables of organization for subordinate units.

The plan of action was published 14 June 1955 in a Continental Army Command training memorandum



(No. 13). Under its guidance, mobile forces of combined arms and services have been organized and are now training in each division at three echelons—Platoon, Company and Battalion.

As a line of departure for the current infantry division, the composition indicated in diagrams A, B and C was prescribed. Commanders in the field have been encouraged, however, to experiment and develop other combinations adaptable to specific variations in mission, terrain and enemy situation. (See charts, pages 8-9.)

Mobile Force training also is planned for Infantry divisions reorganized pentagonally. While composition of the mobile forces employed in these "Pentomic Divisions" will vary in detail from those of the current Infantry division, the principles of organization and tactical employment will be the same.

On paper, the Mobile Forces shown here will remind some readers of the task forces occasionally employed in World War II and the Korean conflict. This resemblance is superficial but not coincidental. It was the occasional *fluidity* of past operations which impelled commanders to improvise such combinations of weapons, men and materiel. Since fluidity will be characteristic of operations on the atomic battlefield, a similarity in the form of adaptation is comprehensible.

There, however, the relationship ends. Task Forces were hastily assembled on the spur of the moment; "Mobile Forces" are being planned for and trained to win battles in advance. Instead of being

strangers as was usually the case with the members of Task Forces, the members of Mobile Forces will be experienced team mates with well-rehearsed signals and tactical plays. The difference on the battlefield between a Task Force and Mobile Force will be like the difference on the baseball diamond between a pick-up nine and the New York Yankees.

IN ADDITION to improving the adaptability of our present and pentagonal type Infantry divisions to atomic battle, the Mobile Forces Program is easing the transition from the present organizations to those of the more distant future. At the same time that it provides combat poise against the ever-present possibility of enemy attack, it is preparing the mental climate of the Army for further evolutionary changes in tactics and techniques. The junior officers commanding Mobile Forces on the maneuver grounds of the United States today are acquiring the experience in the use of combined arms and services that they will need to handle integrated battle groups on the battlefields of tomorrow.

AS PART of the Continental Army Command's evolutionary training program, a panoramic presentation entitled "The Army

(Continued on page 11.)

ORGANIZATION OF MOBILE FORCES

■ TYPE "A" MOBILE FORCE exploits the organic potential of the current infantry regiment and its parent division to field a tight-knit combined arms team of heavy firepower capable of independent tactical operations on the atomic battlefield. Given adequate logistical support by air, it could perform effectively for prolonged periods of time without physical contact with other units.

With its emphasis upon weapons rather than numbers of men, it can dominate large

areas adjacent to its position—an essential requirement for meeting the conditions of dispersion dictated by the atomic threat.

After experimenting with a type "A" Mobile Force in atomic field maneuvers, one infantry division commander voiced the opinion that three such forces could have accomplished the mission in the given situation as effectively as his entire division employed conventionally.

Each regiment is now training to furnish one type "A" Mobile Force ready for immediate action within two hours. In all Mobile Force exercises, emphasis is placed upon flexibility, speed of movement, and explosive action demanded by the accelerated pace of operations anticipated on the atomic battlefield.

CHART A1

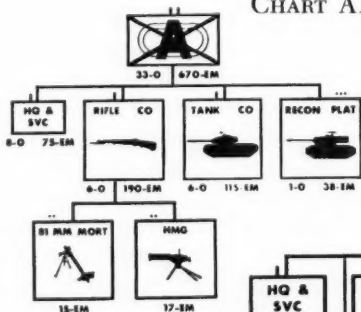


CHART A2

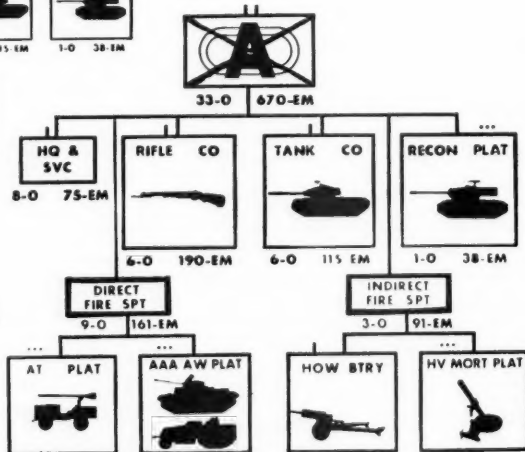


CHART A3

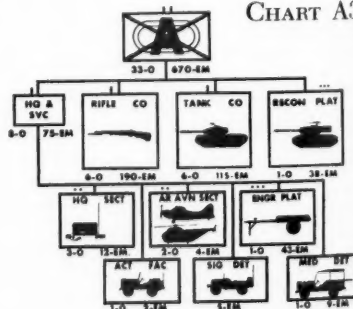
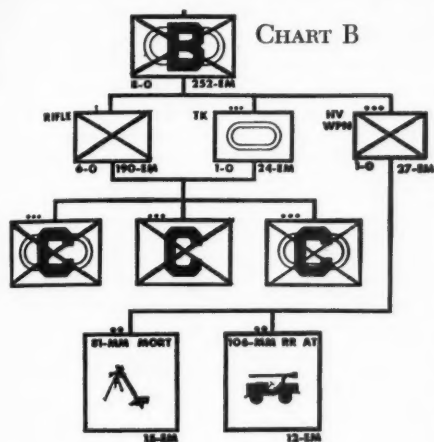


Diagram A1 shows the nucleus of the A Force. To this is added the direct and indirect fire support shown in A2, and the additional support shown in A3. Combine these three diagrams and you have a typical TYPE "A" MOBILE FORCE.

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■ **TYPICAL TYPE "B" MOBILE FORCE** outlined above combines a rifle company and a heavy weapons platoon with a tank platoon to produce a hard-hitting battle team capable of semi-independent action and a wide variety of missions such as support of an advance or rear guard, capture and occupation of key terrain feature or important installation, reconnaissance in force, occupation, organization and defense of a strong point. Conceivably, this may be the forerunner of the basic combined arms team on the battlefield of the future since current thinking points to the possibility that tactical dispersal against atomic threat should begin at the Company rather than the Battalion or Regimental Combat Team level.

Note that "B" Force can provide three "C" type Mobile Forces if the mission so requires, as might be the case in screening and anti-guerrilla missions.

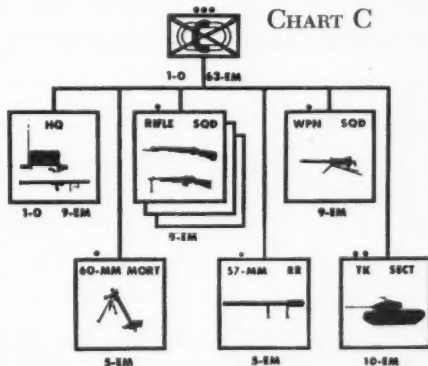
Each Battalion is now training to field at least one "B" type Mobile Force within an hour of alert, using organic resources supplemented by those of the parent regiment. Not shown, but likely to be included in the composition of the "B" Force in many situations, are a tactical Air Control Party, Forward Artillery (Missile) Observer, ammunition and pioneer detachment, and observation and liaison aircraft.

Mobility is provided to all elements of the Force by vehicles organic to the parent Battalion and Regiment. With Armored Personnel Carriers now being made available to Infantry Divisions, full armored protection and cross-country mobility soon may be added to the potential assets of the type "B" Mobile Force.

COMPOSITION OF MOBILE FORCES FOR TRAINING AND COMBAT EMPLOYMENT IN THE NEW INFANTRY DIVISION WILL DIFFER ONLY IN MINOR DETAIL FROM THOSE SHOWN HERE FOR THE CURRENT INFANTRY DIVISION.

■ **TYPE "C" MOBILE FORCE** shown here has rifle platoon as nucleus. Manpower-firepower ratio is heavily increased by addition of mortar, recoilless rifle squads from parent company's weapons platoon, and tanks section from regimental tank company. Additional communications facilities are also furnished by parent company, and entire force is mobilized with vehicles organic to the parent battalion. When mission indicates, vertical mobility may be provided by aircraft from divisional pool.

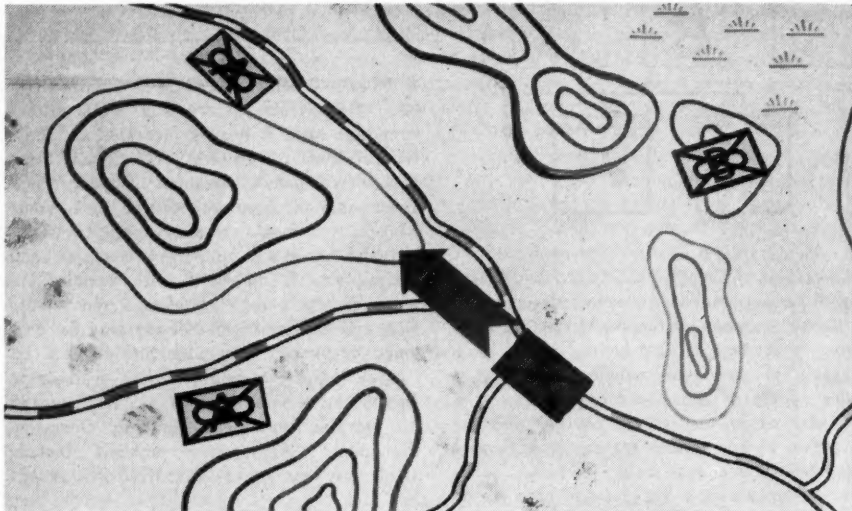
Each infantry company is now training to field at least one "C" type Mobile Force on 30 minutes notice as Standing Operating Procedure. Appropriate missions include flank and rear guard; advance party of ad-



vance guard; capture or destruction of point installations such as bridges; reconnaissance forward of main battle area; mop-up of bypassed or isolated small enemy groups; establish patrol ambushes; combat patrol against enemy infiltration between units widely dispersed within the battle area.

Battle drills establishing basic patterns for tactical deployment are important part of Mobile Force training designed to produce speedy, coordinated action from codified oral orders such as: ENVELOP LEFT (OR RIGHT), PENETRATE, PURSUE, DEFEND.

MOBILE FORCES PREPARE TO COUNTERATTACK ENEMY PENETRATION following atomic strike in this scene from a map demonstration of Mobile Forces tactics. The two type "A" Mobile Forces (left) are approximately 5 miles apart. Note the contrast in dispersal and disposition of units symbolized here with the density and linear defense of World War II battlefields. High ground is being used by the "A" Forces for cover and observation rather than occupation for static defense. "B" type Mobile Force (upper right) holds shoulder of penetration, prepared to strike at enemy flank and rear.



ADDITIONAL DIVISIONS REORGANIZED FOR ATOMIC CAPABILITY

THE 4th Armored Division at Fort Hood, Texas, and the 4th Infantry Division at Fort Lewis, Washington, are the latest U. S. Army units to be reorganized for atomic combat capability under the Army's new divisional organization structure. (See May 1957 DIGEST.)

Army divisions which began reorganizing earlier this year are: the 25th Infantry Division in Hawaii; the 1st Armored Division at Fort Polk, Louisiana; the 1st Infantry Division at Fort Riley, Kansas and the 11th Airborne Division in Germany. The first to come into being under this program was the 101st Airborne Division at Fort Campbell, Kentucky. (See page 12, this issue.)

Within the next two years all the Army's divisions—Infantry, Armored, and Airborne—will have been tailored to fight wars in which atomic weapons may be used, while retaining their firepower and general effectiveness for successful non-atomic combat.



(Continued from page 7.)

Looks to the Future" has been shown in recent months to students of Service Schools, to key officers of each Army in the United States, and to senior officers of the U. S. Army Reserve and the National Guard. It is hoped that many more *DIGEST* readers will have an opportunity to see this presentation during the months to come. In much greater detail than space for illustration here permits, it depicts the tactical employment of Mobile Forces on the atomic battlefield and explains the transitional role of the Mobile Forces concept in exploiting the combat potential of both the pentagonal and current Infantry divisions.

In conclusion, I wish to emphasize that the Mobile Forces Program is not THE answer to the

evolutionary needs of the Army. It is only a stop-gap measure designed to make the most of what we have on hand and on the way. The material evolution of the Army must continue unabated. It must be geared to our technology as closely as our national economy will allow.

The difference between the rate of military adaptation and the rate of environmental change is the margin of national danger. The life of the laggard is short. Hot or cold, there is no second prize in war!

UNIT TRADITIONS MAINTAINED AMID CHANGE

DESIGNATIONS of distinguished regiments whose colors have been carried into battle by generations of American soldiers will be preserved under the Army's newly adopted combat arms regimental system.

The old traditions of the historic "regiments of the line" thus will perpetuate organizations that distinguished themselves at Yorktown, Gettysburg, San Juan Hill, Chateau Thierry, Normandy and the Pusan Bridgehead, to give the soldier of today a link with the past as well as a stake in the future.

Changeover to the system will be gradual, geared to conversion of the Army to the pentomic concept. Eventually every combat unit will bear the flag of one of the Army's historic regiments. The regiments will be institutional rather than tactical, so that each "parent regiment" will field a variable number of combat units depending on size of the Army at any one time.

*The
Beginnings
of
ROTAD*

REORGANIZING T

101st AIRBORNE



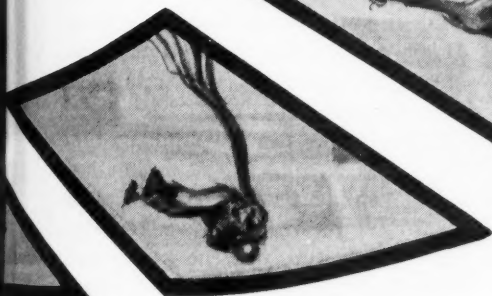
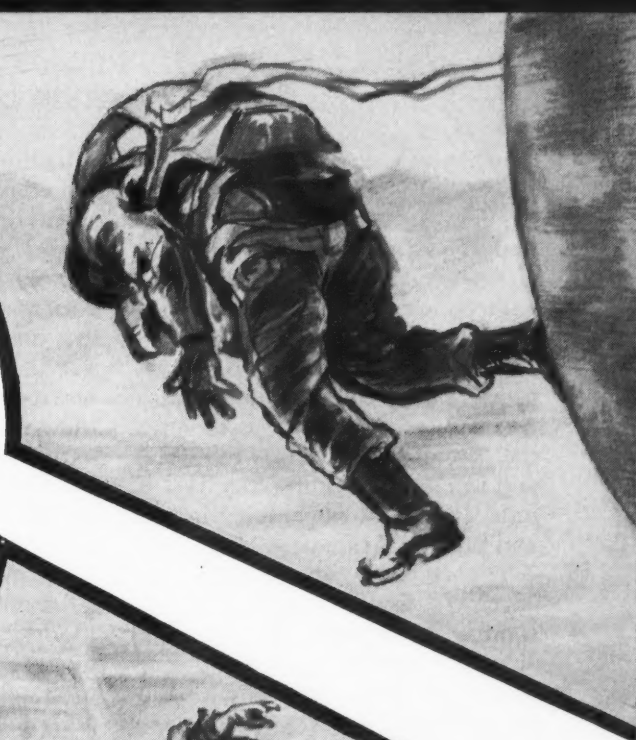
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MAJOR GENERAL T. L. SHERBURNE

WHEN the new 101st Airborne Division received its colors from Secretary of the Army Wilber M. Brucker and Army Chief of Staff General Maxwell D. Taylor on 21 September 1956, the professional military eye could discern on the parade ground at Fort Campbell, Kentucky, a division disposed like no other in the Army.

Gone was any semblance of a tri-regimental structure. Instead

there were five battle groups of a size between battalion and regiment. In Division Artillery were five howitzer batteries and a newcomer to division rolls, an atomic-armed Honest John Missile Battery. There was a Signal Battalion, an Engineer Battalion and another newcomer, a Command and Control Battalion. There was a third new unit, a large one, called the Support Group. Particularly no-

ticeable was the absence of tank units, and artillerymen could look in vain for field pieces heavier than the 105mm howitzer.

This was the first division organized according to ROTAD—"Reorganization of the Airborne Division"—a document which may prove basic to America's future Army. It and the reorganization of the Armored Division (ROCAD) and Infantry Division (ROCID) to follow will have far-ranging impact and interest Army-wide.

The ROTAD organization (*See cover.*) stresses simplicity of the command structure. One command element between division and company has been eliminated. Elements which assist a commander to administer and control the division, reconnoiter for intelligence and to air-transport elements in an airhead have been conveniently centered in the Command and Control Battalion.

Logistical activities have been functionalized and placed in the Support Group. The Signal Battalion exists to provide communications (much more rapidly than heretofore) over widely dispersed areas. Operations of the Engineer Battalion are geared to combat activity in an airhead, with special

attention devoted to the hasty construction, with air-dropped equipment, of forward assault landing strips.

Note the key to ROTAD organization—the number five. There are, for example, five battle groups, five line companies in a group, five howitzer batteries in Division Artillery. The Army calls it *Pentomic*.

ROTAD, developed and written by Continental Army Command, stamps the 101st Airborne Division as the first unit of the Army's new True Ready Force. Indeed, the 101st must be so characterized if its organization, its equipment, its tactical and strategic concepts, are to be thoroughly understood and accepted.

A study of the complete ROTAD Tables of Organization and Equipment reveals the 101st as a "lean and mean" outfit—lean in equipment and administrative luxuries, mean in its high percentage of foxhole strength and the shock power of its new weapons. One might be tempted to add that it is also weak in staying power and incapable of sustained combat. For example, where are the tanks and, except for Honest John, the medium and heavy artillery? We like to think that, for a True Ready Force, they will be at a Corps, Army or Theater, ready to be thrown into the battle if the 101st must dig in and slug rather than jab hard and disappear quickly to hit somewhere else.

In essence, the 101st Airborne



MAJOR GENERAL T. L. SHERBURNE is
Commanding General, 101st Airborne
Division, Fort Campbell, Kentucky.

Division has been organized to:

- Move out, completely ready, in a few hours.

- Assault by air, with utmost austerity in heavy equipment and vehicles. If airlift in strategic aircraft is involved, include that travel time, plus a relatively few hours to re-load into medium aircraft.

- Operate new 1500-man battle groups independently or in concert over wide areas toward mission-type objectives. Here extreme flexibility and integration of all necessary supporting elements are of maximum importance.

- Strike hard and, as the situation demands, disperse rapidly, concentrate speedily and re-deploy by air.

- Conduct administrative and logistical actions at battle group level *along functional lines*. (To streamline these activities, ROTAD dispenses with units concerned only with items and equipment of a particular service, such as an Ordnance Company or Quartermaster Battalion. Instead, supply, maintenance and repair are performed by all-purpose teams furnished the battle groups by the Support Group, with second and third echelon work done by the Support Group itself.)

- Exploit to the maximum the use of organic aviation (L-19 and L-20 fixed-wing aircraft; H-13 and H-34 helicopters).

- Create new tactics and techniques to best utilize the new organization and equipment.

THE 101st Airborne Division can best be understood if we realize that this is the kind of unit the Army can maintain in a constant

state of readiness for instantaneous action anywhere in the world. Such a unit must be completely air-transportable in assault type aircraft. The Division must be capable of both conventional and atomic warfare. Any compromise in organizing and equipping such a fighting force must be resolved in favor of lightness, mobility and flexibility.

The tactical advantages of such a True Ready Force are obvious. Any commander in any theater who has available a fighting force that can be airdropped in a variety of situations has a tactical capability he need not measure in terms of numbers of men or sheer weight of equipment. Consider the difficulty that must face an enemy in guarding his rear areas against the mere threat of a fast-moving, hard-striking, completely airborne force.

The strategic advantages of an airborne True Ready Force may be even more important. One may well wonder if Korea would have been a battleground at all had the United States been able to counter that conflict in its early stages with a two- or three-division "fire brigade." An answer is thus provided to creeping aggression.

THE THESIS that the Army should emphasize air transportability in a program of modernization received its first impetus in 1945. In ROTAD, and specifically in the 101st Airborne Division, this thesis is being translated into actuality.

As this is written, a year has passed since the nucleus of a staff and the first contingent of troops began arriving at Fort Campbell to build the 101st according to



The 101st counts on cargo helicopters to bring vehicles . . .

ROTAD specifications. Only five months have elapsed since the division's formal Organization Day. What has happened at Fort Campbell in this interval? Has enough been accomplished to permit any well-defined conclusions as to the effectiveness of the ROTAD concept as exemplified by the division?

Certain personal conclusions and impressions are possible. This presentation, then, is in the nature of an informal interim report, set forth in brief and general terms.

Broadly speaking, our activities have fallen within three general categories—Organization, Training and Testing, all conducted concurrently on an accelerated schedule.

ORGANIZATION

THERE is no need to dwell at length on the complexities of the organizational process. Organization has proceeded rapidly, and only minor revisions in the ROTAD plan have been necessary so far.

The 101st was formed largely of personnel from the 187th and 508th Airborne Regimental Combat Teams. Thus the division was able to organize with a welcome core of experienced airborne officers and NCOs. These were adapted to the ROTAD organization by a process of like-unit integration as far as possible.

However, there was an early shortage of 3500 enlisted men, many of them specialists not provided at the RCT level, or personnel required by the more complicated equipment for ROTAD. Filling this void has been a major



. . . supplies, ammunition . . .

problem. Airborne recruiting teams operating at training centers helped attract basic infantrymen. The division trained them, first as paratroopers and then for their particular duties. High priority for the 101st at Army specialist schools is slowly bringing us the skills the division needs.

TWO battle groups were initially organized at near full-strength, in order to provide a basis for studying and testing the battle group organization. Fillers have been channeled to the remaining three battle groups as they became available. Finding and training skilled individuals for the Support Group, Command and Control Battalion, Engineer Battalion and Signal Battalion has been a problem. While this is an all-jump unit, a few non-jumping personnel—bands-

men, communicators—are still with the division.

With the 101st, a TOE requirement for a high percentage of specialists and a goal of almost 100 percent airborne-qualified will always tend to intensify the personnel problem and hamper organizational effectiveness.

There is one even more important consideration. Remember that the 101st Airborne Division is constituted as a True Ready Force. If it is to conduct emergency missions at maximum effectiveness, it should *always* be fully manned with qualified personnel. There will hardly be sufficient time between an alert and takeoff to allow for the input of personnel from other units.

Personnel problems have far

..... artillery pieces ...



from stymied the organization of the 101st. The division is a going concern whose organization from the beginning has functioned smoothly enough to permit an accelerated training program while, at the same time, permitting its participation in extremely important organizational tests.

TRAINING

TRAINING the Army's first airborne True Ready Force has been a satisfying experience to all commanders and staffs. From the beginning ROTAD has presented a great challenge, but always the way has been open to new ideas, new methods. Despite an accelerated schedule there has been opportunity to experiment. The results have been rewarding.

Battle groups have been in the field almost daily pioneering as they train for the marshalling, loading, assault drops, rapid attack and re-deployment actions required by the ROTAD concept. Hardly a day passes without someone coming up with some new idea to lighten a paratrooper's load, speed his communications or get him and his equipment more rapidly from one place to another. Actions that were unique a few months ago have been commonplace. A few examples:

In the short period since its reorganization, the 101st has made more multiple heavy-drops in formation, airlifted more personnel and equipment for re-deployment by C-123 aircraft from assault landing strips, moved more small units

... and troops to forward battle areas.





The versatile "Mechanical Mule" increases mobility over rough terrain.

tactically by helicopter than have all other units of the Army combined!

The 101st Airborne Division Artillery has perfected an accurate survey system accomplished (with the exception of short tapings) entirely by triangulation, with helicopters as aiming points.

Division engineers are developing revolutionary methods for the very rapid preparation in an airhead of rough landing strips for assault aircraft.

Laying of telephone lines by helicopter has been mastered and will become routine when dispensers are available in quantity.

This list could be extended by several pages.

THE many official visitors and observers at Fort Campbell have been impressed with the effective haste of the division's combat-type operations.

To begin with, austerity in heavy equipment and vehicles permits any part or all of the 101st to respond quickly to an alert. Time spent in the marshalling area has been reduced. The entire division can be transported into an assault in little more than half the planes required for a conventionally

manned and equipped airborne division.

Once committed to ground action, the ROTAD unit is uninhibited in its ability to assemble to reduce counterattacking pressure on its airhead, strike forward to an objective, split its force if need be, and to consolidate for redeployment by air.

Some observers have commented that an austerity in vehicles tends to limit the speed, mobility and range of a paratrooper on the ground. In initial ground action, it is true, he is limited to the speed he alone can muster, but a well-conditioned paratrooper—and 101st troops run many miles each week—is no slowball when he has to move on his own two feet.

ROTAD gives him an Army "Mechanical Mule"—actually a motorized platform—to carry weapons, ammunition and supplies. Though this vehicle is slower than a quarter-ton truck, it is much more mobile over rough terrain. The 101st is eagerly awaiting delivery of these versatile vehicles this summer. Meanwhile, in their stead, stripped-down jeeps are being used.

But for optimum speed, range and mobility, the 101st is condi-

tioning its units to the maximum employment of the fifty Army combat aircraft of the division's Cavalry Troop and Aviation Company. If a unit needs vehicles for a quick dash to an enemy's flank, the vehicles can be delivered by H-34 helicopter. Required 105mm howitzers are brought forward by the same means. Units called on to reconnoiter, raid or apply pressure in an enemy's rear also use aircraft. Army L-20 planes carry pathfinders and patrols. They airlift television cameras for battlefield surveillance.

AN outstanding lesson learned in working with ROTAD, is the value of organic combat aviation. The extent of aircraft employment will be limited only by the number available; and the variety of missions they will perform will depend on our ingenuity.

Their greatest value perhaps lies in the least spectacular of their tasks. In a tight combat situation, it is difficult to find the equal of the large helicopter as a cargo carrier. Loads carried in or slung beneath it, delivered from assault-type aircraft landed in an airhead to units moving rapidly forward or caught in counterattack, help to concentrate shock power where needed with a rapidity impossible in previous operational concepts.

The 101st Airborne Division is well beyond the theory stage in employment of combat aircraft. They are in constant use—an inherent part of every field operation.

Thus far, we have touched briefly on objectives and accomplishments in training rather than on problems and procedures. Our training is far from complete. Neither is it uniform in all units of the division. For example, the first battle group



AIR-DROPPED and quickly ready to fire—a 105mm howitzer . . .

organized was participating in a test of its organizational structure while the last group to be organized was waiting for the first half of its fillers to complete airborne school. But those are growing pains. At this stage the training proficiency of the division is not necessarily the very first concern.

TESTING THE ORGANIZATION

LESS than a month after its formal organization, the 101st Airborne Division entered into Troop Test Jump Light, a four-month examination of the validity of the ROTAD organizational concept.

Continental Army Command directed the test, with responsibility assigned to Third Army. The Third Army Commander, Lieutenant General Thomas F. Hickey, took personal charge and formed a Test Director Headquarters at Fort Campbell. This activity under Deputy Test Director Brigadier General Roy E. Lindquist, included more than 100 selected officers and men from service schools, Third

. . . and this jeep-mounted 106mm recoilless rifle.





Massed colors flash in silken splendor as the 101st Airborne Division kneels in prayer during reactivation ceremonies at Fort Campbell.

Army and XVIII Airborne Corps Headquarters.

Jump Light, it was pointed out, was to be "an examination of organization and doctrine of the 101st Airborne Division, rather than a test of its training proficiency." Generally, tests sought to determine if type units of the division, and the division itself, were properly organized to conduct airborne assault missions under tactical concepts designed to cope with both conventional and atomic war.

Mobility in the air and on the ground was emphasized in the tests, along with flexibility of movement, command control and defense against atomic attack. The tests sought data on the ability of a

ROTAD unit to move rapidly and surely in an airborne mission; assemble and reorganize after air delivery; defend against counter-attack in an airhead; reconnoiter and survey an objective area over extended distances; shift forces in combat by organic means, including use of division aircraft. They scrutinized communications systems, support structures and command and staff procedures.

Tests of company-size units followed a regular pattern. They began with concentration of troops and equipment in a marshalling area, continued with a personnel and equipment drop, followed by rapid deployment to fulfill tactical missions, and concluded with re-

deployment by C-123 assault aircraft.

In the battle group test, the 187th Airborne Battle Group moved by C-124s from Sewart Air Force Base to Fort Bragg, reloaded into C-119s for airborne assault and ground action against Aggressor troops supplied by the 82d Airborne Division, then re-deployed by C-123s and returned to Fort Campbell by C-124s.

The tests concluded with a field exercise involving the division staff and major units of the division not previously tested, such as the Support Group and the Engineer and Signal Battalions.

It is not possible at this time to comment conclusively on the results of the tests. That is the province of the final report prepared by General Lindquist and his staff for further evaluation by Third Army and CONARC.

It may be assumed, however, that the final report will undoubtedly indicate some changes for ROTAD. From our own observations, particularly during the concluding division field exercise, we can foresee possible questions on the Support Group structure. The Support Group concept is basically sound, but it does constitute a major revision in airborne logistics

"Fighting an action" under ROTAD tactical concepts, paratroopers descend during Jump Light tests at Fort Bragg.



and will require more test before acceptance. Some organizational and procedural changes may be necessary to develop this functional system of logistics into a completely workable Standing Operating Procedure for this and other divisions.

Elsewhere in the organization of the division, we see few, if any, minor changes necessary. With the admission that it is difficult to register a completely objective and unbiased opinion of the 101st Airborne Division, we will venture the opinion that this first ROTAD division is a forthright example of the kind of modernization the Army needs. It is a well-designed fighting machine. With but few structural changes, it can be the prototype its planners envisioned.

IMPORTANT in this evaluation of the 101st Airborne Division is the fact that, while the testing agency was not concerned with training proficiency as a subject of test, we of the division were. Scenarios written by Test Director Headquarters afforded an excellent basis for application of ROTAD tactical principles. During Jump Light we were able to see those principles applied through an extended series of engagements. This is good training in itself, and an excellent opportunity to evaluate training proficiency.

It has been heartening to note how well men of the 101st have absorbed their training lessons. They have reacted to the test situations in a manner that speaks well for them, for their state of training and for ROTAD. The many observers at Fort Bragg who witnessed the spirit and determination of 101st paratroopers as they

clicked through phase after phase of the exercise know that this is an outfit that has trained well, in a surprisingly short time.

Not all the success of the 101st under ROTAD can accrue to the division itself. The 101st had the good fortune to be part of XVIII Airborne Corps, where Major General Paul D. Adams and his staff have been unstinting in their help. The Department of the Army, CONARC, Third Army, the service schools, all have nurtured the newest division of the Army with utmost care. At times it seemed that the division staff numbered in the hundreds instead of a few dozen, and it has been a good feeling indeed. Never in a similar endeavor have I seen so much constructive effort by so many people.

Major General Chester E. McCarty's 18th Air Force must share in the credit, too. Building the 101st Airborne Division has truly been a joint undertaking that has disclosed a healthy spirit of partnership on the part of the Air Force troop carriers.

ALREADY there has been some public discussion that an extension of ROTAD may one day result in all-purpose units capable of handling any task confronting the Army. Before non-airborne proponents of this thesis apply for jump school and before its opponents label the thesis as oversimplification, it may be well to consider what ROTAD may mean to an individual in the Army in the light of what is evident thus far.

A company commander, for instance, should brighten considerably at the thought that a new organizational system might trans-



A tactical deployment of the 101st Airborne Division is discussed by Army Chief of Staff General Maxwell D. Taylor for a television program.

fer his property records to a higher echelon. He might also wonder seriously about the feasibility of carrying new and lighter equipment when faced with the prospect that this same concept may take away most of his trucks.

With no infantry or artillery battalions envisioned under ROTAD, those who are or expect to be battalion commanders should have some interest in what their jobs will be. (Incidentally, a reassuring note—there are a normal percentage of positions in a ROTAD organization for lieutenant colonels and majors.)

Foresighted regimental or group commanders should be casting some thought on such propositions as channeling all supply, repair and maintenance functions from multi-service centers. They should be wondering just how soon, if theories just tested become doc-

trine, they must get caught up on dispersed defense and fluid (or amoeba) concepts of tactical action.

UNLESS he is a jumper, why should anyone be concerned with the results of airborne unit tests? Even before the 101st Airborne Division was organized, the 3d Infantry and 1st Armored Divisions were testing versions of these same ROTAD theories. And certainly it is clear that in modern war troops will, or should, move by air, accompanied by light-weight weapons and equipment. An air-transportable division—the 101st or a version thereof—can furnish a core to which heavy artillery, tanks, trucks and missiles can be added for sustaining support.

In working toward this goal, the flexibility of ROTAD can be its greatest asset in a modernizing Army.



DEVELO
TO

THE PROGRESS which is made in peacetime in the development and integration into our Armed Forces of new weapons, equipment, tactics, techniques and doctrine is our Nation's only assurance of being able to keep ahead of any potential enemy. It represents also the greater portion of our insurance against war. By keeping pace with tomorrow, we not only increase our ability to deter aggression but we also maintain or develop a capability which will insure a quicker and more complete victory if war is forced upon us.

To achieve this progress, to insure that the search for better ways of doing our job with better weapons and equipment is not only relentlessly pursued but fully coordinated, the Army's research and development and combat development agencies are feverishly seeking to produce tomorrow's weapons and concepts today and to urge greater speed and inventiveness on our technology.

The research and development agencies of the Army have already produced some truly revolutionary weapons and items of equipment. However, in addition to the pro-

grams for materiel development, continuous study and experiment must be conducted to determine the *combat applicability* of such materiel and to discover and report new materiel requirements based upon tactical concepts. This latter action rests upon the Commanding General, U.S. Continental Army Command.

The Commanding General, CONARC, is charged with the responsibility for evaluating the effect on tactical doctrine of new scientific developments. He likewise has the responsibility of developing requirements for new weapons, where necessary, to meet the demands of new tactical concepts.

This responsibility and the combat development effort derived therefrom is often mistakenly identified with the pure materiel research and development effort which results in the creation of specific weapons and items of equipment. In order to clarify the meaning of "combat development" as used here, it is defined as "The development of information on the combat applicability of new concepts of organization, tactics, tech-

Experimentation Center:



DEVELOPING TOMORROW'S ARMY TODAY

**BRIGADIER GENERAL
FREDERICK W. GIBB**

niques, weapons, and equipment and the application of that information in the synthesis of an effective fighting system."

TO ACHIEVE the desired results within this defined framework, a combat development program must work toward a five-fold objective:

It must examine the Army's offensive and defensive effectiveness under a variety of assumptions of enemy weapons and tactics, under varying conditions of light, weather, terrain, and the like.

It must incorporate the most modern weapons into the fighting system.

It must look ahead and anticipate the changing battlefield conditions and the problems brought about by scientific and technical advances that may force combat-proven weapons and procedures into obsolescence.

It must prepare for startling innovations in tactics and techniques that may completely outmode established weapons, equipment, methods of operation and doctrine.

Finally, to make up for a lack of experience in many new areas, it must provide intensive field experimentation to supplement anal-

ysis and to provide an arena in which new theories can receive the acid tests of practical application.

TO DISCHARGE his overall combat development responsibility, the Commanding General, CONARC, until recently had a relatively small but widespread combat development organization with a control and coordinating group at Headquarters, CONARC, and combat development groups at various service schools. A review of the combat development program in 1954 by the Haworth Committee found the existing effort not fully adequate, particularly in the practical testing of theories by field experimentation. The procedure for testing new organizations, doctrine, and techniques by combining maneuvers of general reserve units with troop testing, it was found, provided no continuity and had proved expensive, inconclusive, and inadequate.

A need therefore existed for a combat development agency devoted to scientific experimentation, divorced from external training requirements, located in an area in which experiments could be conducted, and staffed with military and scientific personnel and experimentation troops dedicated solely to the task of producing unbiased factors upon which decisions could be based.

TO FILL this need, the U. S.



BRIGADIER GENERAL FREDERICK W. GIBB is Commanding General, U.S. Army Combat Development Experimentation Center, Fort Ord, Calif.

Army Combat Development Experimentation Center (CDEC), a field agency of Continental Army Command, was established on 1 November 1956 at Fort Ord, California, as an integral part of the overall combat developments effort of the United States Army.

CDEC's mission is to assist the Commanding General, CONARC, in the discharge of his responsibilities for the development of and experimentation with concepts, organizations, doctrine, and procedures for the Army in the field. The specific functions of the Experimentation Center are—

1. To prepare, conduct, and evaluate, with objectivity and scientific control, experiments with concepts, organizations, doctrine, and procedures for future combat, as directed by the Commanding General, Continental Army Command. This function includes experiments for the integration of new materiel into organizations.
2. To report the results of experiments and to make appropriate recommendations for the revision or adequacy of the concept, organization, doctrine, materiel under consideration.
3. To design and establish experimentation methods and procedures for the accomplishment of the experimentation program.
4. To apply scientific analysis to solutions of combat development problems under consideration.

A staff of forty-four officers, fifteen civilian scientists, and ten enlisted men has been assembled at Fort Ord and nearby Monterey to accomplish this mission.

WITH its quarter of a million acres of mountains, plains, rolling hills, and forests, the Fort Ord-Camp Roberts-Hunter Liggett Mili-

tary Reservation complex is ideally suited for the conduct of large-scale experiments on a year-around basis. Camp Irwin, in southeastern California, provides suitable conditions for desert and other special experiments; and United States air, naval, and marine installations are readily available to facilitate possible future conduct of joint tests and experiments.

To fill the requirement for troops to be used in the experiments, the 10th Regimental Combat Team, part of the 5th Infantry Division stationed at Fort Ord, was made available to CDEC and designated as experimental troops with no mission other than experimentation. This provides a sound basis for continuity and objectivity.

CDEC is organized into four principal staff sections. Three of these are military, headed by Army personnel. The fourth, the research section, with offices in Monterey, is a civilian organization headed by the Director of Research, Dr. Franklin C. Brooks, who is the principal scientific advisor to the Commanding General, CDEC, and directs the operations of a group of scientists which comprise the Research Office of the Experimentation Center (ROEC).

This group of civilian scientists insures objectivity through the application of scientific methodology in the design, conduct, and analysis of the experiments. ROEC is responsible for the development of measuring instruments, of devices to aid in umpiring and control, and of weapons-effects simulators and for the collection and analysis of experimental data using electronic processing equipment.

Close association of scientists and



Future uses of helicopters for movement of rocket batteries will be studied in troop experiment at CDEC.

Army personnel is one of the key aspects of CDEC. Project teams, consisting of both scientific and military members, conduct the experiments. The teams may be headed by either a scientist or an officer, depending on the nature of the experiment to be conducted. Throughout the experimentation program, scientists and Army personnel pool their talents to provide the best possible approach to the problem at hand.

CDEC's initial mission is to conduct experiments within the framework of an Integrated Combat Group (ICG). Basically, CDEC is required to experiment with variations in organization, weapons, tactics and techniques in various phases of warfare (offense, defense, retrograde, special) over varied terrain against known or likely

enemy organizations and techniques. The purpose of these experiments is to determine the best possible combination of firepower, tactics, techniques, logistical support, command and control, mobility, communications, and information acquisition.

BASED on this requirement and on available resources, a program for accomplishing this mission has been developed, subdivided into five major experimental areas:

The Platoon Experiment is a continuation of a series of studies and experiments being conducted by Psychological Research Associates (PRA), a civilian research organization operating on contract under ROEC. This program is designed to develop quantitative factors by field experiment on

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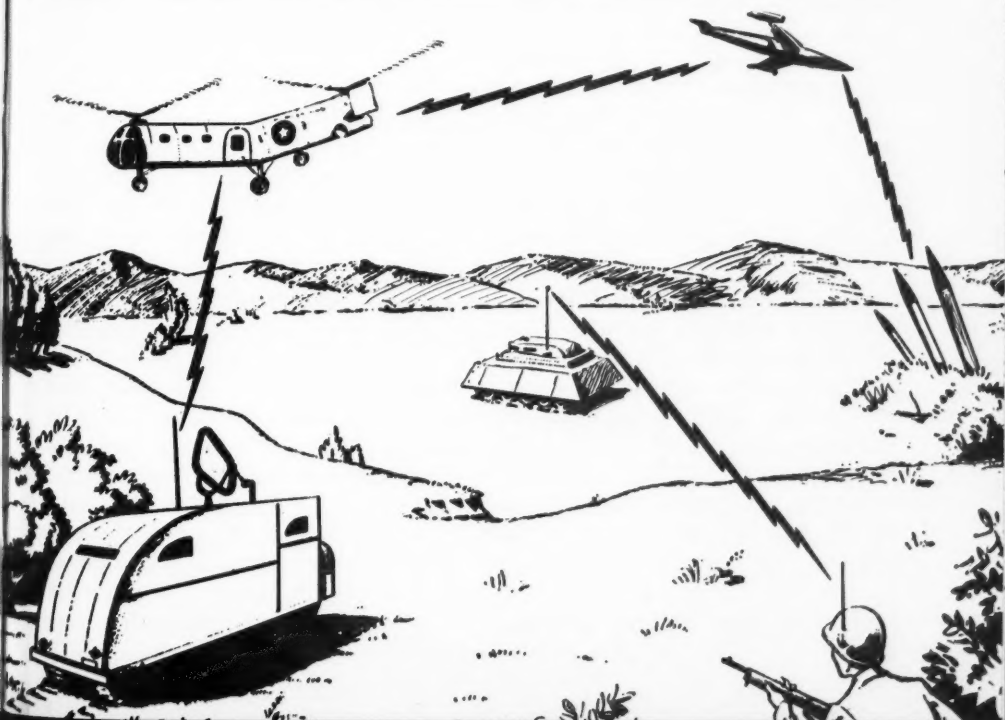
speed of target location, assessment of combined weapons effectiveness, data on neutralization effect, and the like, with the overall objective of determining the best combination of men, weapons, and tactics for rifle platoons under varying types of combat conditions.

The Company Experiment is to test through scientific measurement the relative effectiveness of several types of infantry rifle company organizations and their accompanying operational concepts under atomic and non-atomic conditions. This experiment is concerned with such things as weapons effectiveness (firepower), mobility, controllability, command structure, communications, with the overall objective of determining the best combination of men, weapons, and tactics for rifle companies under

varying types of combat conditions.

Artillery Weapons System. The main objective of this experiment is to determine the most effective combination of artillery weapons and techniques to provide close support for the combat group. The design of the experiment will vary the types and numbers of artillery weapons that are organic to the infantry regiment and the types and numbers of the weapons that the light battery of the division artillery employs. The communication, liaison, command, survey, and gunnery methods employed by each element of this regimental-division artillery team will be varied and competitively evaluated. An additional and extremely important objective is the collection of precise data on the times, accuracy, and effects of artillery

Integration of new communications equipment and techniques into Army organizations also will be analyzed.



fires and operations. This data, never before precisely measured in tactical operations, will provide a sound basis for future studies and experiments.

Components Experiments. This series of experiments will furnish data for use in the Integrated Combat Group (ICG) test. They will cover such subjects as helicopter use and vulnerability, capability of the rifle platoon in extended reconnaissance, Dart versus tank, communications systems, target acquisition and battlefield surveillance.

Integrated Combat Group. This experiment will be the culmination of the present program. Incorporating and using the data obtained in the previous experiments, it will provide a suitable vehicle to establish the best combination of organic weapons, command control, tactics, and techniques within the framework of the Integrated Combat Group as well as the support requirements from units not organic to the ICG.

Concurrent with and closely integrated with these experiments are a variety of studies designed to furnish statistical data on distribution and volume of fire, logistical requirements, weapons simulators, reaction times, umpire procedures, and the like. These will be useful in the conduct of future tests.

Longer range programming visualizes experiments of the Integrated Combat Group in special operations (desert, amphibious, mountain, river), the all-purpose Integrated Combat Group, the use of SkyCav, divisional and corps artillery support of the ICG, air defense for the ICG, divisional logistic support of the ICG to include mass evacuation of casualties,

adequacy of transport for mobile operations, and logistical resupply capabilities.

While the general goal of the experimental programming is known, the specific direction it will follow will be dependent upon the results obtained from early experiments and, of course, upon the resources available. In the conduct of the experiments, a fund of factual data and testing techniques will be built up. Analysis of the data may indicate a need for a change in the structure of the ICG or it may even indicate the need for an entirely new concept.

The value of the experimental approach lies in the acquisition of basic data which can be used in future problems. As experimental techniques are evolved, new and simpler methods for determining the validity of a proposed organization or concept will be developed and quicker, easier techniques can be applied to the solutions of problems which arise in the future.

AS THE number of individual experiments grows, close coordination on the use of ranges, personnel, and equipment must be effected. To insure this coordination and the timely flow of equipment and manpower into the various experiments, a control board has been set up in CDEC Headquarters.

Here both schedule and coordination status are graphically portrayed. Critical areas are quickly apparent, so that necessary steps can be taken to insure smooth functioning of the program. Progress check dates also are established to anticipate problems that may arise.

As a typical example, the company experiment illustrates the

Civilian scientists apply tested techniques in design, conduct and analysis of experiments.



various steps by which an experiment is developed, conducted, and analyzed. This experiment is designed to determine the relative effectiveness of several companies (under atomic and non-atomic conditions) using varied TOE's and operational concepts. In addition, the experiment is designed to measure various factors which influence the validity of new concepts and to provide data to assist in the analysis of future experiments.

First, the basic objective is analyzed in order to establish a concept of experiment. In the case of the company experiment, this analysis indicated that leadership, personnel, and training should be held as constant as possible or taken into account through induced variations in the tests. Also, as directed in the objective, TOE and operational concepts were to be deliberately varied throughout the test. An analysis of these variables indicated that the company performance areas which could be expected to be significantly influenced were firepower, controllability, and mobility. This, then, indicated the general framework of the test.

The next step was to design the test. Variations in TOE fall into

two categories—organizational structure, and equipment (type, distribution, and number). Since the experiments were to incorporate tactical concepts, combat situations had to be included. A series of two-sided engagements covering major tactical offensive and defensive operations conducted on varied terrain under changing weather conditions, including night operations, was therefore indicated.

In order to account for the variables of personnel, leadership and the like, a series of repetitions of the experiments was indicated. Additional study resulted in an experimental design wherein four companies using different organizations and tables of equipment would run through the experiment on each terrain area, thus providing a series of sixteen repetitions in all. This procedure would be followed for each of the performance areas expected to be affected—firepower, controllability and mobility.

The third step was the procurement of equipment and personnel, and the training of these personnel in the organizational structure they were to use. Procurement and training of umpire and Aggressor personnel, preparation of ranges,



During a test, troops rush to exploit an advantage following a simulated atomic explosion.

umpire manuals and data recording sheets were also to be accomplished. As the procurement of supplies was going on, detailed scenarios for the tests were prepared, and rehearsals for umpire and Aggressor units were held. When these preparations were complete, the actual test phase began.

IN THE first stage of the actual experiment, firepower was compared. The four test companies were organized according to four TOE's in which there had been a systematic variation of the numbers and types of indirect fire and anti-tank weapons. These four companies were run through four tests over varied terrain to determine the comparative best combinations of weapons. This "best combination" of weapons was used for all four companies in the second stage of the experiment.

In the second or controllability stage, four different organizational structures were used in running through four test areas. Thus the

relative controllability of the companies was determined. From this, the organizational structure for use in the third stage of the experiment was chosen.

In the third or mobility stage, the weapons system and organizational structure earlier found most satisfactory were used while the type and amount of transportation was varied to determine the most satisfactory mobility characteristic for the company.

At the end of each of the three phases, the findings were analyzed to indicate the action in the next phase. At the completion of the entire experiment, all data were analyzed and evaluated. From this, conclusions and recommendations are being made concerning the organization and employment of the infantry company. This general method will be followed in other future experiments.

AS CDEC looks to the future, it recognizes the inevitability of change. New weapons, new equip-

ment, new technological advances have their impact on doctrines, concepts and organizations in the Army, just as new doctrines, concepts, and organizations establish requirements for technological developments.

The advent of the tank on the battlefield brought speed, mobility, and tremendous striking power, but it was not until the *blitzkrieg* concept was developed that the full potential of the use of the tank in conjunction with other weapons was realized. The dropping of the atomic bomb on Hiroshima signaled the end of massed formations of men and equipment and fostered the concept of dispersed independent units. The concept of worldwide Army mobility established a requirement for lightweight, air-transportable materiel.

In the past, there was time to adjust to new conditions when war came. A buffer of time and space allowed our Nation to re-equip and reorganize in time to meet the threat. We benefited by the battle experience of our allies in developing concepts for the employment of our forces and measures to counteract enemy effectiveness. We had time to motorize the Army and to learn how to use this mobility.

In the future we will not have the buffer of time and space to adapt to new concepts. We will not have the battle experience of others to indicate needed changes.

Today, with our forces deployed throughout the world, the Army stands on the potential front line of any war, global or peripheral. When and if a war comes, we will have to fight it with the equipment, tactics, and concepts then in being. We will have no time to reorgan-

ize to embrace new concepts. Changes made on the battlefield will cost lives and even battles.

CDEC therefore must do its part to provide our Army with the means to insure instant readiness. When new concepts are evolved, the impact of these concepts on the structure of the Army must be studied, not just in theory or in conferences, but in actual field experiments which duplicate battle conditions as far as possible. Technological developments required by the new concepts must be determined and action started to fill the needs.

The impact of new equipment on concepts and doctrines must be studied and experiments undertaken to adapt the equipment or the doctrine to preserve a working balance. New enemy capabilities (organizational, materiel, or tactical) must be pitted against our organizations, and necessary changes must be determined. If changes are indicated, they must be examined in the light of other factors affecting our development program.

Only by such continuous study and experimentation can we be assured that the United States Army will be armed, equipped, and organized to meet any threat instantly with the finest fighting system in the world. Through the unique facilities and experimental experience of the Combat Development Experimentation Center, our Army can be provided with information, hitherto unavailable, upon which decisions on the organizations, weapons systems, tactics and techniques of the future may be based.

**As real-life situations unreel,
Military Police test their**

Marksmanship Under Stress

AT FORT GORDON, Georgia, realism is being added to Military Police marksmanship training through use of an ingenious cinematic or movie target pistol range which tests a soldier's ability to judge critical situations under stress.

Installed by Brigadier General Jeremiah P. Holland, Commander of Fort Gordon and the Provost Marshal General's Center, who previously employed the system with marked success in Germany, the cinematic range can reproduce any situation that can be filmed. The trainee stands in a firing booth and watches a special problem situation unreel—perhaps an escaping criminal, or one who pretends to surrender then shoots, or one who uses another person as a shield.

The marksman must make his de-

cision instantly and follow it through to a conclusion. As he fires, a circuit breaker stops the film, the image "freezes" on the screen and a red light illuminates the bullet hole. The instructor scores the result, the screen is sealed, and the movie resumes.

By duplicating the impact of a "live" situation, the range provides opportunities to improve marksmanship and sharpen judgment.

Main components of the range are a 5 x 5 target screen, a heavy paper roll that seals the bullet holes, a fiber-board mat and steel backstop. The projectionist uses remote control switches to operate the equipment, and he may use sound or not as the situation requires. So far, subcaliber .45 automatics and .38 caliber revolvers are the largest weapons used.



To fire or not to fire—MP's reaction time and judgment are tested as a picture of an "escapee" (right) is flashed on screen at the pistol range of the Provost Marshal General's Center, Fort Gordon, Georgia.



**TRAINFIRE goes to the heart of combat
as it teaches soldiers to**

SHOOT≡

FAST≡

AND≡

STRAIGHT≡



Colonel Nelson I. Fooks

CHARGED WITH building the best possible force for big wars, little wars, and anything in between, the Army of necessity must develop complex machines and materiel which frequently may give the impression that they are the chief mainstay of victory. But the basic rifleman, the individual soldier who must meet the enemy on the ground, is never forgotten in planning for the proper force.

Because use of the rifle is obviously a basic and fundamental skill of the infantryman—the man who holds the key to success in battle—Headquarters United States Continental Army Command (CONARC) has come up with a rifle training

program designed to produce infantrymen better fitted to bring against an enemy a devastating weight of accurate, timely rifle fire.

The program, dubbed Trainfire I, represents an entirely new approach to the problem of teaching a soldier to shoot fast and accurately. Briefly, the new program substitutes killable silhouette targets for the conventional stationary ringed bulls-eye target on the premise that in combat a hit is a casualty—that an enemy soldier is not a ringed bulls-eye who is a greater casualty by reason of a hole in his chest instead of between the eyes. Thus the program goes directly to the heart of individual combat.

So far, several hundred trainees have learned their shooting under the new program at Fort Jackson, South Carolina, and Fort Carson,

COLONEL NELSON I. FOOKS, Infantry, is Executive Officer, Infantry Section, U. S. Continental Army Command, Fort Monroe, Virginia.

Colorado. Compared with conventionally trained groups, Trainfire I trainees scored significantly better.

MANY thousands of men have already become very good rifle shots under the current methods of teaching rifle marksmanship in the U. S. Army. This consists of a thorough grounding in the functions of their rifles, setting the sights for various ranges and wind conditions, practice at squeezing triggers, and at sighting and getting into position.

Normally, conventional firing on the range is at bulls-eye targets at known distances, with rifles zeroed at 200, 300 and often at 500 yards. Firing is done from formalized standing, sitting, kneeling and prone positions; it includes slow fire and rapid fire. After completing the known distance firing, trainees go through a transition range where they fire at silhouette targets at unknown ranges from various types of support and partial cover.

Graduates of this system have turned in some of the best scores ever accomplished with a military rifle—and they have compiled exceptional records in two World Wars and Korea. So why change?

One big reason is that studies have shown that many riflemen in combat have not fired at all under circumstances which found others with their barrels hot from firing. And some who did fire failed to make their efforts effective. These facts are strikingly revealed in Brigadier General S. L. A. Marshall's book, *Men Against Fire*.

So the problem appeared to be a revision of marksmanship training that would more closely ap-

proach the type of shooting which the soldier could expect in combat. Under supervision of CONARC, the Infantry Human Research Unit at Fort Benning, Georgia, began working on the entire problem.

The answer was Trainfire I. Under this test program, trainees still learn the basic fundamentals of shooting. But they begin firing their rifles earlier in the course and finish on a specially designed range with realistic targets which fall when hit.

Within the first four periods of instruction, the trainee fires three rounds with his rifle for familiarization and, incidentally, to whet his interest. He spends 28 hours on the 1000-inch range digesting and practicing the fundamentals of sighting, trigger control and position, testing his progress at each step with live ammunition. On this range he learns to hit where he aims. Then he goes on a series of ranges, each designed to provide training in logical sequence in a phase of combat marksmanship.

The final test comes on the Trainfire record proficiency range, where his skill in hitting some 112 fleeting killable targets gives a realistic measure of his marksmanship.

Each trainee is assigned a series of lanes of fire with targets hidden at ranges of 50 to 350 yards. Controlled by a range officer, these targets appear briefly in an unpredictable sequence. The trainee, firing from a foxhole or from behind a post, must spot each target, aim and fire in the five or ten seconds that it is exposed. As in combat, target detection is essential in firing this course.

DURING the past year, units at

Forts Jackson and Carson have conducted carefully controlled tests of the system. Evaluation of results indicates that in all probability the system will be adopted. To this end, CONARC has prepared a plan for full-scale implementation of Trainfire I to accomplish the change-over.

Conversion to the new system, if adopted, will be accomplished in two phases lasting about three

lished also at various training centers throughout the country.

One of the first related problems is that of providing qualified instructors for Trainfire I. To accomplish this, selected posts will send cadres to Forts Jackson and Carson. These trained cadres in turn will train others.

Quantities of targets, too, must be provided. The targets used in Trainfire I add combat realism to



Killable targets that fall when hit are substituted for the stationary ringed bulls-eye of current fire training.

years. In the first phase, Fort Jackson will convert all of its rifle marksmanship instruction to the new system and Fort Carson will use its test facilities as a pilot installation in preparation for full implementation. During Phase I, pilot installations will be estab-

lished. Consisting of an electrically powered, remotely controlled mechanism which presents a silhouette target that falls when struck by a bullet, they are designed to simulate a human figure that suddenly appears, remains exposed for some seconds, then dis-



Targets at various distances pop up in unpredictable manner.

appears. The working mechanism is placed in a hole or trench so that the structural parts are protected against hits.

This new target, which has been given the descriptive name of "Punchy Pete," has both psychological and practical advantages. Its realism conditions the rifleman's reflexes to shoot to kill. It does away with the unproductive training time previously spent working in the pits on the known distance range. The target is easily moved, thus making it adaptable for use in field problems.

"Punchy Pete" can also be adapted to rustle bushes and grass, simulating the movement of a hidden enemy. Trainees learn to react to these fire-fight cues and can deliver quick, accurate fire, just as they must to survive in combat.

Procurement of a large number of these targets is expected in Fiscal Year 1958 before Phase II (complete implementation in the active Army) would go into operation.

Trainfire I is designed as an instruction package which will prepare the trainee to bring prompt, effective fire upon an enemy. It conforms to educational principles by relating the skills learned in

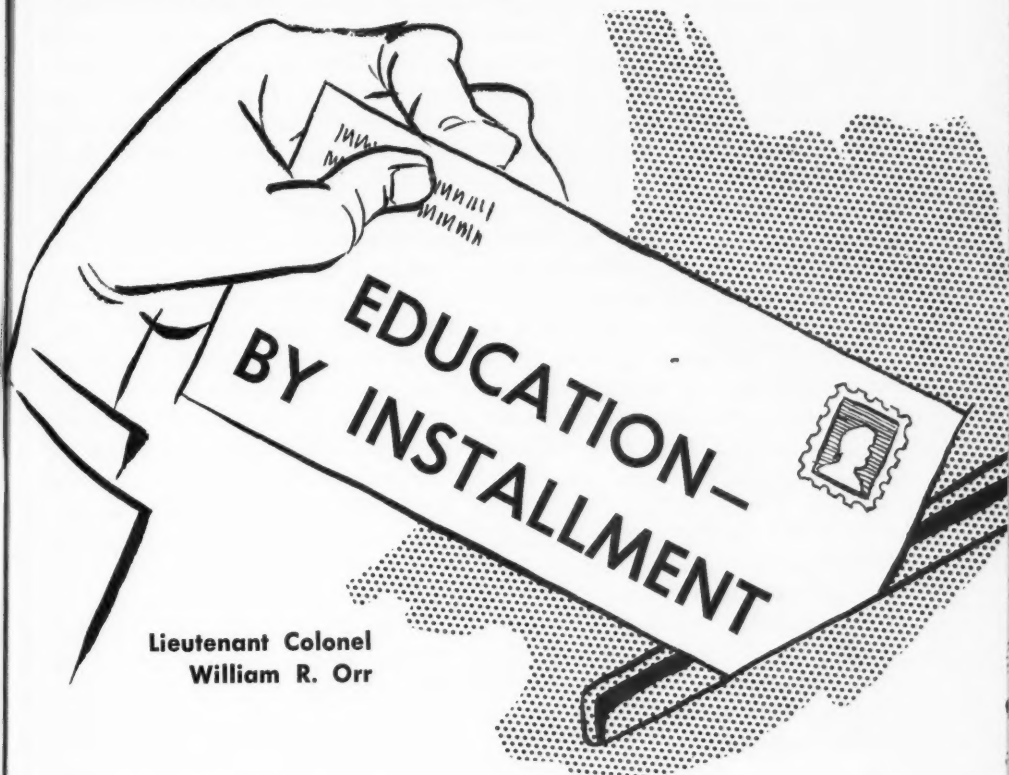
training to those used in combat.

THE overall "Task Trainfire" is an entire marksmanship training study and experiment designed to increase the effectiveness of combat riflemen through increased realism. It begins with Trainfire I, individual marksmanship training, and follows a logical progression. Trainfire II, the second step, deals with daytime squad technique of rifle fire and basic squad tactics.

The third phase, Trainfire III, will initiate a program of squad sniper training for selected riflemen, while Trainfire IV will develop a training program for sniper specialists. These latter two will use a combination of Trainfire and current methods of instruction in an effort to impart to the Army's best riflemen all known techniques for firing at medium and long ranges.

Overall, the test program has long-range significance to the Nation's security. By stepping up the kill potential of the individual infantryman, he can expect to live longer; moreover, he has the prospect of ever greater success in his all important mission—advancing, seizing and holding ground.

Active or Reserve, at home or far afield,
Army Extension Courses offer every soldier a chance
to advance professionally through



Lieutenant Colonel
William R. Orr

THOUSANDS of soldiers all over the world are progressively developing their talents as they work on Army Extension Courses offered by various Army service schools. Officers or enlisted personnel, aspiring NCOs or holders of reserve commissions—all are pursuing their professional education in installments.

All of these students take it for granted that the courses will be mailed to them at the proper time,

LIEUTENANT COLONEL WILLIAM R. ORR, Artillery, is Chief of the Extension Course Division, Department of Publications and Non-resident Training, The Artillery and Guided Missile School, Fort Sill, Oklahoma.

that their papers will be promptly graded and returned, and that each course will provide a sound background knowledge of the duties of section and platoon leaders, on up to executive officer, commander, and the like.

Few of them realize, however, the efforts that must be put forth to assure that what the students take for granted actually works out that way. To make certain of this, all of the schools spend much time and a great deal of effort to insure that the extension studies parallel closely the instruction given to resi-

dent students at the school.

Typical of the behind-the-scenes activities involved in preparation and processing of Army Extension Courses is the work performed by The Artillery and Guided Missile School Extension Division. (Procedural variations among schools exist, of course, since each has its special problems.)

TWO CONCEPTS guide the system of writing Army extension courses. In one, the subcourse is written by resident instructors as an additional duty. Under the other system, the subcourse is written by authors especially trained and assigned to an extension division or department.

At The Artillery and Guided Missile School it is believed that writing extension courses is a full-time primary duty. Quality and uniformity of instruction and control of revision and preparation programs are facilitated by having authors grouped under one directing head. Artillery extension courses are therefore prepared by the Extension Course Division of the Department of Publications and Non-resident Training. Conformity with resident doctrine is insured by close liaison with the various departments.

Keynoting the entire program, the student is offered the opportunity to develop his talents progressively. Courses are arranged so that in the first 12 subcourses of the Battery Grade Extension Course a newly commissioned second lieutenant gains the fundamental knowledge he needs to qualify as a forward observer or assistant battery executive. In the remaining 14 subcourses the lieutenant completes

the basic study which enables him to function as a battery executive, firing battery commander or assistant staff officer at battalion level.

The Advanced Extension Course prepares the captain and major for duty as battalion commander, group, division or corps artillery staff officer. It provides for smooth transition to the division level courses of the Command and General Staff college.

The Special Extension Course offers the opportunity to study details of some specific phase of artillery. Subcourses written here and by other schools are grouped into instruction packages which are recommended for the officer who has a special need for that knowledge, or who wishes to refresh his knowledge. Thus a student may tailor studies to specific needs.

Subcourses with pat answers which can be solved by parroting the text have no place in the program. All subcourses are designed to make the student think. Principles are learned through the text, then applied to solve the exercises.

PRODUCTION of such subcourses is a time-consuming job, demanding painstaking research, careful thought and close coordination with resident instructors. The authors must possess wide experience and sound background. All extension course authors at The Artillery and Guided Missile School are carefully selected graduates of the resident Advanced, or Associate Advanced Course.

A continuous system of course analysis is practiced by the Extension Course Division. Revision of an old course or decision to prepare a new one stems directly from this

study. Occasionally Headquarters, Continental Army Command will direct that the School prepare a common subcourse. Sometimes suggestions come from an individual member of the Armed Forces in the form of criticism. Such constructive criticism by users is the vital life blood of the whole Army Extension Course Program.

Once the need for a new subcourse is established and an author is available, a guidance memoran-

dures that doctrine expounded in the proposed course will be identical with resident instruction.

Then the author develops a detailed outline in the form of an objective and scope for each lesson. Sometimes at this stage it is seen that the subject must be organized into two or more subcourses.

Following this, the subcourse with title, objective, scope, number of lessons, amount of credit it will carry, and the objective and scope



dum is prepared for the author giving title, objective and broad scope for the new course. Included will be a listing of the text materials on which the course is to be based, the current course with which the new one must relate, the resident department with which the author will work, the level of student for whom intended and a tentative completion deadline.

The author then meets with a liaison officer from the resident department teaching the same subject. They discuss text references and prepare a list of any other background material available in the resident department. This in-

for each lesson is presented to the resident department for comment. CONARC approval also is sought. Comments from all concerned are incorporated as appropriate.

WITH these preliminaries completed, the author really unlimbers his pick and shovel to get at the main job of preparing the new course. He first makes a list of every principle contained in the available reference material. Then he subdivides it into groups to be covered in the lessons. After this he must design exercises that will drive home each principle. Next he organizes the text material into

study assignments. He makes liberal use of a so-called "Attached Memorandum" in which he expands upon the text material, just as a platform instructor does.

Now comes the most exacting part of the job—discussion and proof of the solution to each exercise. AR 350-60 already prescribes that a discussion accompany each solution to exercises involving the use of maps; but the School insists that a discussion accompany the solution to *every* exercise in *every* subcourse. Any exercise whose solution cannot be conclusively proved in this discussion is held invalid and is rejected.

Review and comment is a continuous process as the author proceeds. The liaison officer from the resident staff has been in constant consultation. As each lesson is completed, the chief of section reviews and comments on it. A special editing staff then passes on the results. Although the author is conversant with good English, further editing often smooths rough spots and increases readability.

But the course still is not ready for printing. First come searching tests for quality by the resident department which reviews the proposed course as a complete teaching unit. Selected students then put it to the acid test under actual home study conditions.

Copies are sent to fifty enrolled students who have volunteered to test the subcourse. They work it over, keep careful notes of the time required to read and understand the text, and to work the exercises. They comment on consistency, readability, clarity and any controversial points in the solution and discussion. Their comments are

reviewed and valid ones are incorporated in the finished script. Then the course finally goes to the printer.

Even after publication, there is a continual periodic review of the new course along with all others in the school for possible revision by a special operations staff.

IN ADDITION to the careful preparation of subcourses, an equally painstaking system is maintained for administering academic records for extension students. This is accomplished by an "academic records unit."

At The Artillery and Guided Missile School this unit exists solely for service to the student. Everything is pointed toward speed and absolute accuracy—speed in returning graded lessons, processing examinations, forwarding new subcourses—and accuracy in grading and in recording grades.

Currently there are approximately 11,000 students participating in the various subcourses of the School. A breakdown shows 73 per cent officers, 27 per cent enlisted personnel; 9,000 artillery, 175 infantry, 125 Air Force, 330 Marines. Of the total, 5,700 are National Guardsmen, 2,700 Reservists and 2,000 in the active forces. Two students are members of the Women's Army Corps.

The same story—with some individual variations, of course—applies to other schools maintaining an extension division. (See "Extension Courses for the Infantry," July 1953 DIGEST.) All, like The Artillery and Guided Missile School, are dedicated to top-quality instruction and the best possible service to students.

All in all, the extension courses provide a top grade teaching vehicle. When the costs in dollars and man-hours are divided by the number of students taught and the number of individuals who will be

trained, and the results equated with improved efficiency of the Armed Forces as a whole, then the costs appear small indeed. Set in this perspective, they represent money and man-hours well spent.

How the U. S. Army Advisory Group, Korea teaches

English by Electronics

TEACHERS who require no clothing, food, billeting or pay, who are neatly stacked on the classroom shelves after their day's work, are helping the Republic of Korea Army teach military personnel the English language.

Actually the "teachers" are electronic devices—dual track tape recorders. Their use was indicated when ever-expanding needs of the ROK Army for interpreter-translators ex-

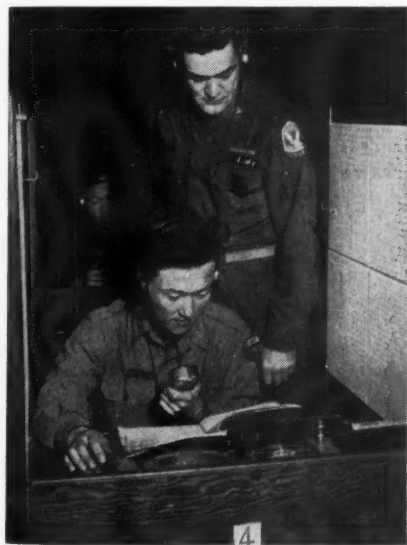
ceeded the available teaching personnel that could be supplied by the U. S. Army Advisory Group, Korea (KMAG).

Heart of the newly adopted system is the dual track tape recorder employing a binaural headset. One track of the tape carries a conversation prepared by professional teachers in the United States. The student runs through the tape, listening carefully and studying a text book at the same time.

Then the student rewinds the tape and plays it over, this time repeating each phrase or sentence into his own microphone. On the playback the student hears the instructor's voice through one earphone and his own voice through the other. By comparing, the student can make constant corrections and improvements in his accent and pronunciation.

In addition to tapes and texts, slide projectors are employed during the first 20 hours of English language instruction at the Korean Army Adjutant General School. Visiting speakers—whose talks are recorded for future use on the dual tape recorders—also are brought to the school. During the entire course, students must speak English.

Located at Taegu, the school maintains a library of some 15,000 English tapes; in addition many books, magazines, and newspapers are available.



A KMAG adviser monitors a recording made by a Korean Army student.

Training AIDs

Keep your organization current with the latest training materials by referring to this section in each issue.

TRAINING AIDs

Training Films recently scheduled for distribution include:

Helicopter Weight and Balance—(TF 46-2339)—teaches the basic principles of weight and balance in terms of helicopter flight requirements.

Intermediate Helicopter Flight Training—Part I—Take-Off and Flight Procedures—(TF 46-2418)—demonstrates take-off and flight procedures, explaining how each maneuver is accomplished and when it should be employed.

Intermediate Helicopter Flight Training—Part II—Autorotations—(TF 46-2419)—explains the specific flight conditions that make autorotation maneuvers necessary and how they are performed under flight conditions.

Defense Against Enemy Propaganda. Designed for military personnel, this film, (AIF 1) defines enemy propaganda, states its aims, and shows how it is used to influence thought and action. Emphasizing that the best defense against enemy propaganda is an understanding of the way it operates, the film reiterates precepts of behavior set forth in the Military Code of Conduct.

Graphic Training Aids. The following new GTA's have been approved for reproduction and may be used to advantage when available (see DA Pam 310-5).

GTA 9-()—Grenade, Rifle, HEAT, M31
GTA 9-()—Ordnance Packaging and Preservative Procedures (Series of 15 Charts)

GTA 9-()—Nike I (Series of 25 Charts)

GTA 10-()—The Armored Vest

GTA 19-()—Traffic Control—Arm and Hand Signals

ARMY EXTENSION COURSES

The following subcourses have been approved for publication by Headquarters, United States Continental Army Command and are either new subcourses or major revisions:

Awards and Decorations, Subcourse

54. The Adjutant General's School. Types of personnel and unit decorations; eligibility; requirements; and administrative procedures involved in awarding decorations and awards.

Communications in the Combat Command, Subcourse 118. U. S. Army Armor School. Review of organization; employment of communication systems in the combat command; employment of organic communication equipment and personnel in the combat command headquarters company; employment of the communication teams normally placed with the combat command by the division signal company.

Staff Chemical Officer I, Subcourse 73. Chemical Corps School. Orientation in staff officer duties generally as a foundation for specific application as a staff chemical officer at division level or equivalent, including chemical staff work in such typical situations as combat divisions, posts, logistical commands, and communications zone sections.

Property Disposal, Subcourse 22. Quartermaster School. Duties and functions of the disposal officer; sources and types of disposable property; documents, records, and procedures for receipt, issue, transfer, donation, and destruction of property; sale of property to include procedures and records; shipment of property.

Fundamentals of Telephony, Subcourse 160. Signal School. Basic means of electrically reproducing and transmitting speech; functions of component parts of the telephone; installation, operation, and maintenance of local-battery telephones; special circuits to increase traffic handling capacity of existing lines; installation, operation, and maintenance of local-battery switchboards.

Preventive Maintenance Supervision, Subcourse 190. Signal School. Individual and command responsibility for preventive maintenance; use of preventive maintenance checklists and unsatis-

factory equipment reports; purpose, contents, and use of TM's, TB's, SB's, MWO's, and LO's for maintenance work; preventive maintenance training; establishing a preventive maintenance program; inspections of signal equipment.

Infantry Division—Offensive Operations—I, Subcourse 14. U. S. Army Command and General Staff College. Review of fundamentals of offense and

principles of war; developing a plan of maneuver, including plan of fires of an infantry division executing an envelopment and a penetration. Clarification of a vague intelligence situation is required. Relative advantages of a penetration versus an envelopment in a situation are weighed, with a decision and development of the scheme of maneuver to implement that decision required.

ENLISTMENT PROGRAMS FOR ARMY RESERVES

A MAJOR revision in enlistment programs for the Army's reserve components has become effective, beginning 1 April 1957.

Young men aged 17-18½ who enlist for six months active duty for training—and who enter training prior to attaining age 18½—will now be required to serve only three years in a Ready Reserve status, following completion of six months of active duty training. Formerly they were required to serve 7½ years in the Ready Reserve after completing six months of training.

Also effective 1 April, and for six months thereafter, men aged 17-18½ may enlist in the National Guard for 11 weeks of active duty for training. Young men in this program are required to participate in Ready Reserve unit training of the National Guard until age 28 and must complete the active duty training by 1 January 1958. After that date enlistment conditions in the National Guard and Army Reserve will be the same for this age group, requiring all to complete six months of active duty for training.

High school enlistees in age groups 17-18½ may delay their entry on the six months active duty for up to one year to complete high school.

Volunteers aged 18½ through 25 can sign up for either the National Guard or Army Reserve for six months active duty for training. Men in this category will be required to serve an additional 5½ years in the Ready Reserve. Service in the Ready Reserve up to 2½ years, performed before the six months of active duty training, may be counted toward the 5½ years.

Men between the ages of 26 and 35 may enlist for three years with a requirement to enter six months active duty for training within 120 days after enlistment. The remainder of the enlistment is served in a Ready Reserve unit in which they enlisted. Men in this category with scarce military skills are not required to take the six months of training.

Ready Reserve training, in both the National Guard and Army Reserve, is normally conducted in 48 two-hour drill sessions during the year in local armories or training centers. In addition, 15 days are spent in summer training camps.



PARAGRAPHS

from



The Pentagon and the Field

Results of the world's first organized competitive missile "shoots" conducted at Red Canyon, New Mexico, last year, are now in. Top honors go to Seattle's 28th AAA Battalion which won out against 40 other NIKE battalions by amassing 9,400 points out of a possible 12,000 in the final tabulations of the complicated scoring system.

Judged by a team of expert missilemen, the competition covered battery assembly of missiles, fire control operations, launching area procedures, actual firing, time required to get each missile off, system checks, and hits scored.



The Army Antiaircraft Command (ARAACOM), with headquarters at Ent Air Force Base, Colorado Springs, Colorado, has been redesignated the U. S. Army Air Defense Command (USARAD-COM).



The first commercial roll-on/roll-off vessel especially built for trans-Atlantic service sailed recently from Brooklyn Army Terminal to St. Nazaire, France, on an Army-inspired test of the efficiency of moving military cargo by roll-on/roll-off methods. Lessons learned from the tests will be applied when the Military Sea Transportation Service takes delivery of its own prototype roll-on/roll-off vessel this summer.



Forty-six years ago this month, on 5 June 1911, the first Army-wide compulsory typhoid vaccination program was launched. Since then, the program has drastically reduced one of the greatest causes of death in war. In contrast to more than 20,000 cases of typhoid-paratyphoid fever reported in one year in the Spanish-American War, there were less than 100 cases among United States

troops in the three years of the Korean conflict, despite the fact that many more troops were exposed to unsanitary conditions.



Specially equipped Aerobee rockets that contain explosive charges are being fired from the top of the world by scientists of the U. S. Army Signal Engineering Laboratories, Fort Monmouth, New Jersey, to reveal for the first time the precise direction, speed and temperature of winds responsible for cold spells. Other data also are being obtained at altitudes up to 80 miles in Signal Corps rocket studies at Fort Churchill in northern Canada. Another series of similar experiments is expected to be launched at Guam Island.



An all-purpose identification and privilege card is currently being issued to dependents of Armed Forces personnel and other persons eligible for medical care, commissary privileges, exchange patronage, and admission to military theaters. The new DD Form 1173 (Uniformed Services Identification and Privilege Card) replaces DD Form 720 (Military Dependent Identification Card) and DA Form 999 (Privilege Identification Card) which may be used until 1 July 1957. The new card contains a plastic-laminated photograph and will specifically identify the privileges and facilities to which the holder may be entitled.

After 1 July 1957 DD Form 1173 will be the primary means of identifying dependents eligible for medical care under the Dependents' Medical Care Act.



An outstanding feature of the first Correction and Confinement Officer Advanced Course (19-0-20) conducted at The Provost Marshal General's School,

Fort Gordon, Georgia, was a presentation conducted by prominent penology authorities from universities, governmental agencies, and nonmilitary correctional institutions. A second course is scheduled for 6-18 October 1957. Quotas for attendance may be obtained from U. S. Continental Army Command.



Almost 2,500 young men—including 200 from the Regular and Reserve components of the Army and Air Force—took the March entrance examinations for admission to the United States Military Academy. Applications are now being accepted for admission to West Point in 1958. Interested enlisted personnel are encouraged to apply to their commanding officers on DD Form 207. Successful applicants on active duty will be enrolled in the U. S. Military Academy Preparatory School, Fort Belvoir, Virginia, for the next course beginning in September.



An eight-week course to qualify Army aviators as "instrument pilots" is being conducted in five continental Army Areas for approximately 440 rated pilots. The instruction—given by four civilian aviation firms under Army contract at five separate airfields—parallels the instrument flight training course given at the Army Aviation School, Fort Rucker, Alabama. Each student receives 80 hours of first-pilot instrument flight instruction and participates in 180 hours of associate ground school instruction.

The title "U. S. Strategic Army Forces" (STRAF) will identify that part of the Army formerly known as the Strategic Reserve (SR); and "U. S. Strategic Army Corps" (STRAC) will be used to designate the major grouping heretofore known as the Strategic Army Force (SAF).

Personnel Policy Briefs

A SCHEDULED change to AR 600-105, Army Aviation Officer Career Program, reduces the normal 3-year tour in aviation duty for certain newly designated Army aviators. In keeping with Department of the Army policy to give lieutenants at least two years' duty in branch material assignments, this change provides for early rotation to branch duty. Applicable to all Infantry, Artillery, Armor, Signal Corps and Corps of Engineers lieutenants who entered flight training with insufficient prior experience in their basic branch, reassignment to branch duty will occur upon completion of 1½ years but not more than 2 years of the initial aviation tour. The minimum period of such branch duty is established at one year. However, this period must be of sufficient length to insure for each aviator at least two full years branch experience. Aviators rotated to branch duty are required to maintain flying proficiency.

In keeping with Army policy to encourage officer personnel particularly suited to research and development duties to seek and achieve progressively higher educational training and experience, Atomic Energy specialization now comes

within the scope of career management programs.

As outlined in AR 614-135, this field includes both Atomic Energy and Research and Development specialization. All qualified officers of the active military service (except those of the Chaplains' Corps and the Judge Advocate General's Corps) are eligible for such specialization. To qualify, the applicant must volunteer in writing, have completed a minimum of 3 years' active service as a commissioned officer, demonstrated special aptness in some phase of atomic energy or research and development programs, and indicate capacity for advancement to progressively higher echelons of responsibility.

QUALIFIED officers are encouraged to apply for transfer to branches where certain shortages exist, according to Department of the Army Circular 614-1. These include *Adjutant General's Corps*, first lieutenant; *Artillery*, major, captain, first lieutenant; *Corps of Engineers*, lieutenant colonel and captain; *Ordnance Corps*, colonel, lieutenant colonel, major, captain and first lieutenant; *Signal Corps*, colonel, lieutenant colonel, major, captain and first lieutenant. Applications for transfer will be processed under AR 614-100.

The Army Quartermaster Corps has established the U. S. Army Uniform Quality Control Office at Natick, Massachusetts, to receive and inspect samples of fabrics and garments for Army dress and semi-dress uniforms to be sold by Post Exchanges, civilian retail stores, and other vendors.

Textile manufacturers and uniform fabricators may submit samples to the agency for certification as to conformance to Army design and fabric specifications. After 15 July 1957, Army personnel have been instructed to buy only uniforms having such certification.



About 500,000 active duty personnel, it is estimated, have Social Security account

numbers. Department of the Army Circular 608-14 prescribes the procedure for recording the numbers in personnel records.



An armored kit to protect tractor operators against small arms fire and shell fragments has been developed by the Corps of Engineers' Research and Development Laboratories, Fort Belvoir, Virginia. The equipment, which can be mounted in the field by maintenance personnel, has been specifically designed for use on standard D-7 and D-8 Caterpillar tractors. Both the engine and operator are protected by the armor plate, and visibility is provided through standard Army Ordnance laminated glass vision blocks.

Official Notes

TROOP INFORMATION. AR 355-5 define troop information; announce policies, requirements, and responsibilities pertaining thereto; and provide guidance for establishment of troop information activities and facilities.

CLAIMS. AR 25-30 prescribe the substantive basis for the administrative settlements of claims not in excess of \$1,000 based on death, personal injury or damage to or loss of property, except those arising in foreign countries.

EDUCATION. AR 621-5 establish policy and authorize funds for the general educational development of military personnel.

CBR WARFARE. AR 220-58 prescribe the responsibilities of commanders to insure that units retain maximum operational effectiveness under conditions of chemical, biological, and radiological (CBR) warfare; command and staff structure for conduct of CBR warfare training and operations; and training required to attain desired state of proficiency.

COMMAND. AR 600-20 establish the policy and prescribe the procedure for assignment of command to, or assumption of command by, officers of the Army.

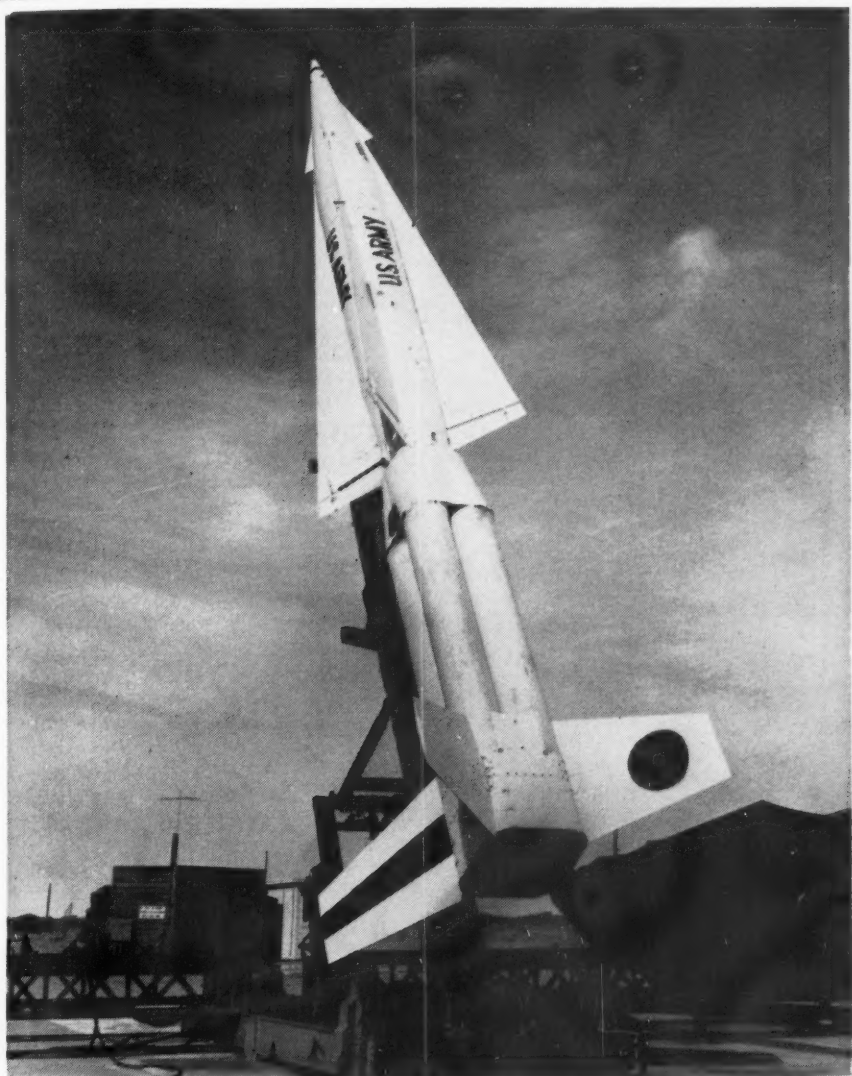
NONAPPROPRIATED FUNDS. AR 230-81 (AFR 176-5) set forth policies and procedures governing the establishment, administration, operation, distribution, use, supervision, control and dissolution of civilian nonappropriated funds and activities within the Army and the Air Force.

RECRUITING DUTY. AR 614-160 prescribe procedure by which officers qualified by aptitude, interest and experience may apply for duty with the United States Army Recruiting Service.

INSTALLATIONS. AR 210-221 outline policies concerning hunting and fishing at military reservations, to encourage the development and conservation of wildlife. It also outlines the applicability of Federal and State fish and game laws relative to license, season, bag limit and other conservation measures.

FOREIGN AID SUPPLIES. AR 795-204 prescribe general policies and procedures under which the Department of the Army provides equipment, materials or service to eligible nations on a reimbursable basis.

ACADEMIC REPORTS. AR 623-106 describe procedures for preparation of academic reports for officers attending service schools or civilian educational, medical or industrial institutions.



KNOWN as Nike-B during development and now designated Nike-Hercules, an improved version of the Nike-Ajax with nuclear capability will be in the hands of operational Nike units in the near future.

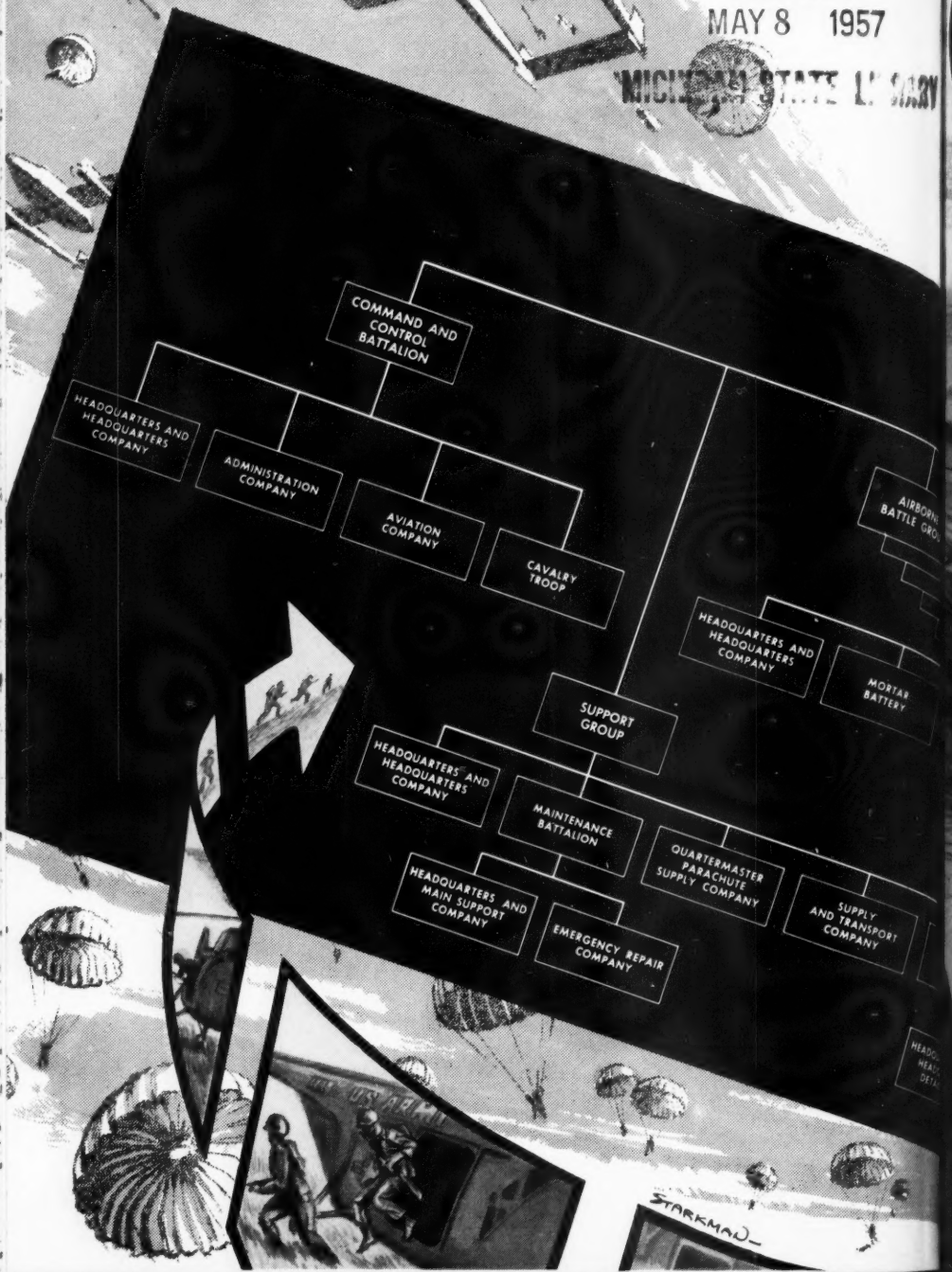
Although longer, heavier and more than double the diameter of Nike-Ajax, the Hercules model will have extreme maneuverability at altitudes far in excess of those capable of being reached by Ajax. Its higher velocity will permit swifter interception of the most advanced types of aircraft; and its increased lethality will make it one of the most effective weapons in the Nation's antiaircraft defense arsenal.

Modifications in existing ground control equipment permit the Nike-Hercules to be integrated into existing Nike-Ajax batteries, so that both types can be fired with the same system.

U. S. DOCUMENT
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THE U. S. ARMY—A KEY TO PEACE